

INSTRUCTIONS FOR COMPLETION OF KENTUCKY MONITORING WELL FORMS

INTRODUCTION

This form is to be used to provide information about a newly constructed monitoring well, modification of an existing well, or abandonment of a well. The form was designed to obtain useful groundwater and monitoring well information from well drillers. The information on these forms is compiled into the Kentucky groundwater database. The database is used to help protect and promote groundwater in Kentucky and to identify resources and problem areas for groundwater users.

Please complete this form carefully and completely. If you have any questions about this form, contact the Kentucky Division of Water - Groundwater Branch, 14 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601. Telephone (502) 564-3410.

(1) MONITORING WELL LABEL

The monitoring well label is divided into two parts. Both parts have a pre-printed eight-digit Kentucky monitoring well identification number. This is a unique identification number for the well, used by the Division of Water to maintain records about Kentucky's groundwater. No two wells will have the same identification number.

If this is a new well, firmly attach the larger section of the label to the well casing. The well casing should be free from oils, moisture, dirt or rust. Attach the smaller section of the monitoring well label to the space provided on the form. Placing the label on the form assures us that this is the first and only well to which this identification number has been assigned. Be certain to use the monitoring well label (blue), not the water well label (yellow).

If the well is being reworked or abandoned, inspect the well to determine whether a Kentucky well identification label is attached. If a Kentucky well identification number has previously been assigned to the well, **DO NOT** attach a new label. Copy the identification number in the spaces provided in Section 3 of the monitoring well form. If there is no label on the well, query the consulting firm, the facility, or the Division of Water concerning identified wells on the site. If it is determined that this is not a previously labeled well, then attach a new well label to the well and to the form.

Also please indicate any alternate identification numbers used for the well, for example an owner's well number "MW-1." This information should go in the "Comments" section of the well record form.

(2) GENERAL INFORMATION

Fill in the requested information concerning the name and mailing address for the facility at which the monitoring well is located, and the actual well site name and address, if different from the mailing address.

(3) WELL IDENTIFICATION NUMBER

Copy the Kentucky well identification number from the monitoring well label if you have attached one to the form. If a Kentucky well identification number has been previously assigned to the well, copy this number into the spaces in Section 3.

(4) WELL LOCATION

USGS 7.5-minute topographic quadrangle map name and the county name **MUST** be indicated.

IF, AND ONLY IF, you provide a location obtained with a GPS receiver (see Section 9, "Attachments"), it is no longer necessary to submit a copy of the map showing the well location

Latitude and longitude will be calculated by the Division of Water, either from the map you submit or from the GPS coordinates provided. **DO NOT** fill in the blanks for latitude and longitude on the form.

(5) GENERAL WELL CONSTRUCTION

Check the appropriate boxes and fill in all blank spaces. Note the units for required measurements.

Start Date - Finish Date Indicate the date when work on the well began, and the completion date. This information should be supplied whether the work is new construction, a modification, or an abandonment.

Drilling Method Check all that apply. For example, if a hollow-stem auger was used through the soil, and switched to air rotary when bedrock was encountered, check both boxes for these methods.

Work Type Check all that apply. For example, if a borehole proved to be dry and was plugged, then both "New Well" and "Plug" should be checked. When more than one well is installed in the same borehole, each should be tagged individually and a separate record submitted for each, with "Nested Well" indicated.

Surface Elevation Elevation should be taken from the topographic map, or if surveyed, expressed in feet above mean sea level.

Total Depth Depth in feet from the ground surface to the bottom of the borehole, not just to the bottom of the casing or screen.

Depth to Bedrock Depth to bedrock is the distance from the ground surface to the top of the bedrock. It may be interpreted as soil thickness. For alluvial wells, or where no bedrock is encountered, write N/A for "not applicable." If bedrock is encountered at the surface, write "0."

Static Water Level Depth to static water level is measured from the ground surface to the water level in the well before the well is pumped.

Wellhead Indicate the manner in which the wellhead was completed.

(6) FACILITY TYPE

Mark all that apply. If "other" please specify.

(7) WELL USE

Mark all that apply. If "other" please specify

(8) PHYSIOGRAPHIC OR HYDROLOGIC REGION

Mark the appropriate region. A base map showing these regions may be obtained from the Division of Water.

(9) ATTACHMENTS

Three attachments are **REQUIRED**: Site Plan, Well Construction Diagram, and Well Location. Mark each attachment in the box provided.

Site Plan A plan, blueprint, or drawing of the facility site showing the well locations and significant features of the property. Significant features include but are not limited to buildings and other permanent structures, roads, railroad tracks, surface water bodies, other wells; and aboveground or underground storage tanks, landfill boundaries, sludgeponds, process lagoons, spill areas, septic tanks, lateral lines, and other potential contaminant sources. The plan should also have a scale and north arrow.

Well Construction Diagram The well construction diagram should show a cross-section profile of the well. This diagram may be drawn individually for each well, or may be a photocopy of a standard well profile with information filled in for each new well. The diagram should show casing and screen, grouted intervals, sand or gravel pack, wellhead construction, and concrete pad. If a waterproof flush mount box is used to complete the well head, specify brand and model as well as sealing method (i.e., rubber O-ring twist lock). Indicate intervals of annulus fill and seal for each section of the borehole. Label all parts of the diagram clearly.

Well Location Two alternatives are available for providing well locations: (1) submission of the well or facility location on a photocopy of part of a topographic map, or (2) submission of well location obtained by a GPS (Global Positioning System) receiver. Mark the option chosen.

If you submit a topographic map, the well or facility location must be clearly marked with a small "X" and should be labeled with the facility name and the Kentucky well identification number(s). This may be a photocopy of the map. Do not use reductions or enlargements. The photocopy does not have to cover the entire map. Only the well location area and a part of the border of the map are needed. Latitude and longitude will be determined by the Division of Water from your map, so please be as accurate as possible.

If you submit a well location obtained by a GPS receiver, report the GPS reading on the Division of Water GPS reporting form. (Call or write for these forms.) Five readings should be taken at intervals of one minute apart. The Division of Water will average these readings to determine the location. If GPS locations have been provided to you by the facility or consultant, fill in only one line on the GPS report form and indicate that the GPS location has been provided to you and not made by you.

(10) WELL COMPLETION INFORMATION

Hole Diameter, Casing Diameter, and Casing Type Specify variations in casing lengths (or intervals). Casing types include PVC, stainless steel, galvanized steel, etc. Use the first line to describe specifications for protective outer casing, if used. Include screen types and intervals.

Well Screens Report screen slot size information in this section.

Annulus Fill and Seal This section describes the material(s) used to seal the annulus or area between the casing and the formation, or between an outer casing and the well casing. The description must include type and interval for each material. List the materials, in order from the ground surface to the bottom of the well, and the interval in which they were used. Specify the type of grout, such as neat cement, bentonite, or cement/bentonite, or other sealing materials such as bentonite pellets or chips. Specify whether sand or gravel was used around well screens, and include brand name or type.

(11) LITHOLOGIC LOG

The lithologic log is a detailed description of the formations encountered during drilling of the well. Please fill out this section in detail. This information is important in understanding groundwater quality and occurrence and potential for pollution. Attach additional sheets if needed.

Feet Below Surface All depths should be recorded in feet below ground surface; the ground surface will have a depth of zero (0) feet.

Description Give a description of the formations encountered during drilling in relation to stated depth. Formation types include consolidated and unconsolidated materials such as soil, sand, gravel, silt, clay, sandstone, shale, conglomerate, limestone, dolostone, coal, chert, etc. Also note the loss of any drilling fluid and the presence of voids.

Be as exact as possible in indicating the depths or intervals where water is encountered. List water flow from unit in GPM (gallons per minute), if determined. A water quality description may include odor, clarity, photo-ionization detector (PID) or combustible gas readings, and any other properties for water produced from this unit. Be certain to note levels and formations in which any contaminants are encountered.

(12) COMMENTS

Provide information regarding problems encountered during drilling or casing installations, or additional information concerning construction details.

(13) AFFIRMATION

Please complete all of the information requested.

Signature Only the state certified monitoring well driller responsible for the well may sign this form. A rig operator may not sign the form.

Distribution Once the well is completed, this form **MUST** be distributed as follows: one copy to Division of Water, one copy to the well owner, one copy to driller's files.